Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (currently amended) A continuous steel casting method

comprising feeding molten steel into a mold, whereby solidification of the molten steel proceeds, and

controlling a flow of unsolidified molten steel in the mold by applying a vibrating magnetic field which is generated with an arrangement of at least three electromagnets disposed along a longitudinal direction of the mold, peak positions of the vibrating magnetic field are shifted along the longitudinal direction of the mold, wherein the longitudinal direction of the mold is a direction along the wide face of the mold,

wherein the vibrating magnetic field in which peak positions thereof are shifted along the longitudinal direction of the mold is generated by a vibrating magnetic field generator which comprises at least three magnetic poles including two adjacent pairs of magnetic poles where directions of ~~magnetic forces directions of~~ electromagnetic forces of the adjacent pairs of magnetic poles are opposite to each other, wherein the total of

each of opposite electromagnetic forces in the at least three magnetic poles are not equal.

Claim 2. (previously presented) The continuous steel casting method according to Claim 1, wherein the arrangement of at least three electromagnets has a part where coil phases of three adjacent electromagnets are in the order of n, 3n and 2n, or a part where coil phases of four adjacent electromagnets are in the order of 0, n, 2n and n.

Claim 3. (previously presented) The continuous steel casting method according to Claim 1, wherein a direct-current magnetic field is superimposed on the vibrating magnetic field in a thickness direction of a cast slab.

Claim 4. (canceled)

Claim 5. (previously presented) The continuous steel casting method according to Claim 1, wherein the molten steel is an ultra low carbon steel deoxidized by Ti having a composition containing: C $\leq$ 0.020% by mass, Si $\leq$ 0.2% by mass, Mn $\leq$ 1.0% by mass, S $\leq$ 0.050% by mass and Ti $\leq$ 0.010% by mass, and satisfying the relationship Al $\leq$ Ti/5 on a content basis of percent by mass.

Claim 6. (previously presented) The continuous steel casting method according to Claim 1, wherein the molten steel is decarburized with a vacuum degassing apparatus, subsequently deoxidized with a Ti-containing alloy, and then an alloy for controlling the composition of inclusions is added to the molten steel, wherein the alloy contains at least one metal selected from among 10% by mass or more of Ca and 5% by mass or more of rare earth metals and at least one element selected from the group consisting of Fe, Al, Si and Ti, wherein the resulting oxide in molten steel contains 10% to 50% by mass of at least one oxide selected from the group consisting of CaO and an REM oxide, 90% by mass or less of Ti oxide, and 70% by mass or less of Al_2O_3.

Claim 7. (original) The continuous steel casting method according to Claim 6, wherein the molten steel after the decarburization is pre-deoxidized with Al, Si, or Mn so that the concentration of dissolved oxygen in the molten steel is 200 ppm or less, before the deoxidation with the Ti-containing alloy.

Claim 8. (previously presented) The continuous steel casting method according to claim 1, wherein a maximum value of Lorentz forces induced by the vibrating magnetic field is in the range of 5,000 N/m^3 or more and 13,000 N/m^3 or less.

Claim 9. (previously presented) The continuous steel casting method according to claim 1, wherein a flow rate V (m/s) of the unsolidified molten steel in the mold for continuous casting and a maximum value F_{max} (N/m^3) of Lorentz forces induced by the vibrating magnetic field are adjusted so that V x F_{max} is 3,000 $N/(s \cdot m^2)$ or more.

Claim 10. (previously presented) The continuous steel casting method according to Claim 2, wherein a direct-current magnetic field is superimposed on the vibrating magnetic field in a thickness direction of a cast slab.

Claim 11. (previously presented) The continuous steel casting method according to Claim 10, wherein the molten steel is an ultra low carbon steel deoxidized by Ti having a composition containing: C< 0.020% by mass, Si < 0.2% by mass, Mn < 1.0% by mass, S < 0.050% by mass and Ti < 0.010% by mass, and satisfying the relationship Al < Ti/5 on a content basis of percent by mass.

Claim 12. (previously presented) The continuous steel casting method according to Claim 2, wherein the molten steel is decarburized with a vacuum degassing apparatus, subsequently deoxidized with a Ti-containing alloy, and then an alloy for controlling the composition of inclusions is added to the molten

steel; wherein the alloy contains at least one metal selected from the group consisting of 10% by mass or more of Ca and 5% by mass or more of a rare earth metal and at least one element selected from the group consisting of Fe, Al, Si and Ti, and wherein the resulting oxide in the molten steel contains 10% to 50% by mass of at least one oxide selected from the group consisting of CaO and an REM oxide, 90% by mass or less of a Ti oxide, and 70% by mass or less of Al_2O_3.

Claim 13. (previously presented) The continuous steel casting method according to Claim 3, wherein the molten steel is decarburized with a vacuum degassing apparatus, subsequently deoxidized with a Ti-containing alloy, and then an alloy for controlling the composition of inclusions is added to the molten steel; wherein the alloy contains at least one metal selected from the group consisting of 10% by mass or more of Ca and 5% by mass or more of a rare earth metal and at least one element selected from the group consisting of Fe, Al, Si and Ti, and wherein the resulting oxide in the molten steel contains 10% to 50% by mass of at least one oxide selected from the group consisting of CaO and an REM oxide, 90% by mass or less of a Ti oxide, and 70% by mass or less of Al_2O_3.

Claim 14. (previously presented) The continuous steel casting method according to Claim 2, wherein the molten steel is an ultra low carbon steel deoxidized by Ti having a composition containing: C $\leq$ 0.020% by mass, Mn $\leq$ 1.0% by mass, S $\leq$ 0.050% by mass, and Ti $\geq$ 0.010% by mass, and satisfying the relationship Al $\leq$ Ti/5 on a content basis of percent by mass.

Claim 15. (previously presented) The continuous steel casting method according to Claim 3, wherein the molten steel is an ultra low carbon steel deoxidized by Ti having a composition containing: C $\leq$ 0.020% by mass, Mn $\leq$ 1.0% by mass, S $\leq$ 0.050% by mass, and Ti $\geq$ 0.010% by mass, and satisfying the relationship Al $\leq$ Ti/5 on a content basis of percent by mass.

Claim 16. (previously presented) The continuous steel casting method according to Claim 14, wherein the molten steel is decarburized with a vacuum degassing apparatus, subsequently deoxidized with a Ti-containing alloy, and then an alloy for controlling the composition of inclusions is added to the molten steel, wherein the alloy contains at least one metal selected from among 10% by mass or more of Ca and 5% by mass or more of rare earth metals and at least one element selected from the group consisting of Fe, Al, Si, and Ti, and wherein the resulting oxide in molten steel contains 10% to 50% by mass of at least one

selected from the groups consisting of CaO and REM oxides, 90% by mass or less of Ti oxide, and 70% by mass or less of Al_2O_3.

Claim 17. (previously presented) The continuous steel casting method according to Claim 15, wherein the molten steel is decarburized with a vacuum degassing apparatus, subsequently deoxidized with a Ti-containing alloy, and then an alloy for controlling the composition of inclusions is added to the molten steel, wherein the alloy contains at least one metal selected from among 10% by mass or more of Ca and 5% by mass or more of rare earth metals and at least one element selected from the group consisting of Fe, Al, Si, and Ti, and wherein the resulting oxide in molten steel contains 10% to 50% by mass of at least one selected from the groups consisting of CaO and REM oxides, 90% by mass or less of Ti oxide, and 70% by mass or less of Al_2O_3.

Claim 18. (previously presented) The continuous steel casting method according to Claim 16, wherein the molten steel after the decarburization is pre-deoxidized with Al, Si, or Mn so that the concentration of dissolved oxygen n the molten steel is 200 ppm or less, before the deoxidation with the Ti-containing alloy.

Claim 19. (previously presented) The continuous steel casting method according to Claim 17, wherein the molten steel after the decarburization is pre-deoxidized with Al, Si, or Mn so that the concentration of dissolved oxygen in the molten steel is 200 ppm or less, before the deoxidation with the Ti-containing alloy.

Claim 20. (previously presented) The continuous steel casting method according to Claim 2, wherein a maximum value of Lorentz forces induced by the vibrating magnetic field is in the range of 5,000 N/m^3 or more and 13,000 N/m^3 or less.

Claim 21. (previously presented) The continuous steel casting method according to Claim 3, wherein a maximum value of Lorentz forces induced by the vibrating magnetic field is in the range of 5,000 N/m^3 or more and 13,000 N/m^3 or less.

Claim 22. (previously presented) The continuous steel casting method according to Claim 6, wherein a maximum value of Lorentz forces induced by the vibrating magnetic field is in the range of 5,000 N/m^3 or more and 13,000 N/m^3 or less.

Claim 23. (previously presented) The continuous steel casting method according to Claim 5, wherein a maximum value of

Lorentz forces induced by the vibrating magnetic field is in the range of 5,000 N/m^3 or more and 13,000 N/m^3 or less.

Claim 24. (previously presented) The continuous steel casting method according to Claim 2, wherein a flow rate V (m/s) of the unsolidified molten steel in the mold for continuous casting and a maximum value F_{max} (N/m^3) of Lorentz forces induced by the vibrating magnetic field are adjusted so that V x F_{max} is 3,000 $N/(s \cdot m^2)$ or more.

Claim 25. (previously presented) The continuous steel casting method according to Claim 3, wherein a flow rate V (ms) of the unsolidified molten steel in the mold for continuous casting and a maximum value F_{max} (N/m^3) of Lorentz forces induced by the vibrating magnetic field are adjusted so that V x F_{max} is 3,000 $N/(s \cdot m^2)$ or more.

Claim 26. (previously presented) The continuous steel casting method according to Claim 6, wherein a flow rate V (m/s) of the unsolidified molten steel in the mold for continuous casting a maximum value F_{max} (N/m^3) of Lorentz forces induced by the vibrating magnetic field are adjusted so that V x F_{max} is 3,000 $N/(s \cdot m^2)$ or more.

Claim 27. (previously presented) The continuous steel casting method according to Claim 5, wherein a flow rate V (m/s) of the unsolidified molten steel in the mold for continuous casting and a maximum value F_{max} (N/m^3) of Lorentz forces induced by the vibrating magnetic field are adjusted so that V x F_{max} is 3,000 $N/(s \cdot m^2)$ or more.